Supporting Information

Mutti et al. 10.1073/pnas.0708958105

agggtaatagttcatcatgaatacacacgcaaatacacaaacacaattgacaaagtgttt tatttcgtacaatgccacaaaactgtttaaatttataataaattcctgcgtgtacaagta aataatatqtaaatattqtattatattatatcqaaatccacaaatacqtatqcaataqca taataactataatcaccatgtcgtaaaaaaaatggtatcagatttctgacctccatagat taagatgtgttgagtggtatttttactgtctaaatacatattatagagtttatcgcgatt attataatatttttttgtttctacaacctgacgtttatcatctgtatattttaaacaaaa tattatcctacccaccaaaataggtttgtattgttgctgggtgttacaactaattccatg ttacgtttaccagatgtgttagtaatttttctaattttctcaattattatttttttgt attgcgataaacccaaatagcgtataataaggcatttaaacgttttacatttTtttttcc ccatatattatatttgctaaccatttaaacaaagcatatgttaaaacacttgtgcaatac cgtcgtgtatccagtgcgatagcgataatttacaacATGGGAAGTTACAAATTATACGTA M G S Y K L Y VGCCGTCATGGCAATAGCCATAGCTGTAGTACAGgtaaaaacaaacaaactatattataca AVMAIAIAVVQ ggatgattcaccaagcacgctcgctcacattttttactttgataatgaatcgtcacactc

gggcaccgaagggtaacgttaggtttcatcatcgataactatagctggatgatgtagtgt tggtggaggggaaccgattggtaggtatcgttcctaccgaacaaatatttacttataacc atataatatqcaaatqtqqqcaaqctaatqaaaataattaactcaaqttaaqtta agaggacacaagatcgataagttaaaagttaacagttaacaaattataaatttaactcga tatttttttttaattagtatgtaaatcacataaagagtgaatgtgtctttttagtttcta atttataaaattataaaataacaattttattqaacatttatcataatqtacactqtatacc ggccttttacttatactttactattatttactaatttaaactatactcatctcaaattaa taatttaataatattttttatatcatatagcaattgaataatataagttataaaaca ttatttaaaacataggtaacaattgtcaatttataatttaaaatgattaatttttaaaa acatttataattqaaactcqtaatatataatttacaacttaataaaaatatatqaatatac acaaaattatgttatcaagaaaaagaacagaaatgtttgtgtttttgtattggattatttttattttatactaacatagtaatatttaagtataaatgaaaaaattgaaaatgttttaa cttgatggatttttttttaaatcaactgagaaaagctaagttatttcaactgtaaattaa catatattatgaatattatattatgtcgtgtgtaaacagGAAGTTAGATGCGATTGGTCT E V R C D W S

Fig. 51. The nucleotide sequence of c002 cDNA was used to BLAST the Acyrthosiphon pisum genomic reads at the Baylor College of Medicine Genome Sequencing Center (www.hgsc.bcm.tmc.edu/projects/aphid/). The 20 matching sequences were identified and assembled into two nonoverlapping contigs with the CAP3 Sequence Assembly Program [Huang X, Madan A (1999) CAP3: A DNA sequence assembly program. Genome Res 9:868–877]. The C002 coding region is divided into two exons with an intervening intron of >1.7 kb. The dotted line in the intron denotes the gap between the two contigs. Putative TATAA boxes are boxed in gray, and polyadenylation signal sequences (AATAAA) are underlined. The proximal poly(A) signal is likely to be the functional signal because this would give a transcript of the observed size.

DEYKSKIWDKAF S CAGCTGATGGAACTAACGTTTAATACAGGTAAGGAATTAGGCTCCCACGAAGTGTGCTCG T F N \mathbf{T} G K E L G S Η RAIFNFV D V M A T TACTCGCTGGGTATGATGAACAAGATGTTGGCGTTCATCATAAGAGAGGTGGACACGACG L G M M N K M L A F Ι I R E V TCCAACAAATTCAAAGAGACGAAGGAGGTTTTCGAACGCATCGCGAAAACTCCAGAGATC NKFKET K E V F \mathbf{E} R I A K T CGAGACTATATCAAGCACACGACCGCCCGGACCGTCGACTTGCTCAAAGAGCCCGTGATT R D Y I K H T T A R T V D L L K E P V AGAGGCCGACTGTTCAAAGTGGTGAAAGCCTTCGAGGGTCTGATAAAACCGTCCGAAAAC VKAFE G L L F K V I K P S GAGGAATTGGTCAAGCAGAGGCTTAAGAGGATAACCAATGCTCCCGCCAAGATGGCTATG ELVKQRLKR ITNAPAKMAM GGAGCCATAAATAAGTTTGGAAGTTTCCTTCGACGTTTTTAAtaagcqcqtccatacaqa GAINKFGSFLRRF aattggaatctcactcgcctaccctttcgacagtcgtcttcagtttttttgtacagtgggt atattatcattattctattattattattgttttattttgttctaaatatactcaactga taaacqaatqatttattatttatttqttaattqttataqaacaatattccttqtqctatt tacctaattacqtqtqtactataqqatcqtqqccctatatqttqtqcaacaaaaacacqt tttactataqataaaaaatqqactcacattatattaacaaqaatatttqaccactccctq tcagacatataggtactctccgtctctccctggcagacataaacttaccagcgttcgctg aggaaagtctgccaggttgtggggacttaggcctgacgccattgatgtttaactacgttt tatgtcaataaacgattggggccggaggagaagtaatgctaacgcggttcctcctccgtc cttcqattaactcqaaaaaaaqatttqaccqaqaaqaaaaaaaccqaaaataattqaaa ttatta<u>aataaa</u>ca<u>aataaa</u>aattggtatactgtaagatatc